

เสียงกับสัญลักษณ์: โน้ตไทยโบราณสำหรับสวดมหาชาติคำหลวง [Sound and Sign: Thai Ancient Vocal Notation for Mahachat Khamluang Chant]

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บทคัดย่อ (Abstract)

บทความนี้มุ่งศึกษาการสื่อความหมายทางดนตรีของโน้ตทำนองสวด โดยทำการวิเคราะห์ความสอดคล้องระหว่างระบบสัญลักษณ์ที่กำกับไว้ในสมุดมหาชาติคำหลวง กับทำนองสวดมหาชาติคำหลวง เป็นส่วนหนึ่งของงานวิจัยเรื่อง “การศึกษาการสวดมหาชาติคำหลวง : แนวคิดเกี่ยวกับทำนอง คีตศิลป์ และการบันทึกโน้ต” ซึ่งเป็นการศึกษาระบบทางทฤษฎีของทำนองสวดมหาชาติคำหลวงและระบบสัญลักษณ์การบันทึกทำนองสวดที่ปรากฏในสมุดมหาชาติคำหลวงที่ได้รับการสืบทอดและใช้สวดโดยเจ้าหน้าที่กรมการศาสนาในปัจจุบัน

ผลการศึกษาพบว่าสัญลักษณ์โน้ตมีระบบที่เป็นแบบฉบับในตัวเอง อันเกิดจากการบูรณาการโน้ตสัญลักษณ์ โน้ตกราฟิก โน้ตตัวอักษร และโน้ตตัวเลข เข้าด้วยกัน ใช้การบันทึกร่วมกับคำสวดลงในสมุดไทย และใช้ประกอบการ “อ่านสวด” ตามประเพณี ดังนั้น โน้ตที่พบนี้จัดเป็นผลงานชิ้นสำคัญในประวัติศาสตร์วัฒนธรรมดนตรีของไทยที่ได้คิดค้นขึ้น และยังสะท้อนความพยายามของนักคิดในสมัยอยุธยาที่เป็นการรักษาและสืบทอดทำนองสวดในรูปแบบลายลักษณ์อักษรทรงคุณค่า

คำสำคัญ (Keywords) : การบันทึกโน้ตโบราณ, โน้ตกราฟิก, มหาชาติคำหลวง, มหาชาติ, สวด, ทำนองสวด, มหากาพย์ไทย.

Abstract

The article aims to identify and characterize musical symbolization of chanting notation by examining correspondence between the symbolic systems representing on the manuscript and intonational chanting of *Maha Chat Khamluang* (*Jataka* epic) which is part of the research on "A Study of *Mahachat* (*Mahajataka*) *Khamluang* Chanting: Its Melodic Concepts, Musical Articulation, and Notation on Ancient Manuscript." The study was based on an antique

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manuscript of *Mahachat Khamluang*, which has been inherited and used by The Department of Religious Affairs, Ministry of Culture in Bangkok today.

The results of the study revealed that the vocal notation regarding its form and system represents a unique invention which is due to the integration of several elements: symbols, graphics, alphabets, and numbers. This notation has been notated with the lyric on the Thai ancient manuscript and used to complement the tradition of "reading chant." The notation found are historically considered an important work invented in music culture of Thailand and also reflecting the attempts of thinkers in the Ayutthaya period to preserve and inherit the chant in a valuable written form.

Keywords: ancient vocal notation, graphic notation, *Mahachat Khamluang*, *Mahajataka*, Buddhist chanting, chant, Thai epic.

Introduction

The chant of Mahachat Khamluang delivers an antique epic describing the life of Prince Wetsandon, who became the Lord Buddha later in life. The chant was created in 1428 of Ayutthaya Kingdom, according to records. (Krom Silapakorn, 1973: 3) For several centuries (from Ayutthaya through Rattanakosin periods), the chant has confronted several deteriorations throughout the succession, and only half of Chapter 7 (Mahaphon) out for 13 chapters has been used in the current performance as a royal ceremony held three times a year at Pra Si Rattana Satsadaram temple in Bangkok. (Krom Kan Satsana, 2007: 43) The texts are in Pali and have been translated into Thai in a variety of poetic forms. In the performance, four chanters chant in unison. One of them, a chief seated second from the right of the party, leads the performance by chanting the introduction section in solo style, which serves as a starting pitch for the chant. The initial pitch can be adjusted based on the chant leader's satisfaction. There is no special pitch or fixed scale for this type of chanting; instead, the leader and his members must agree on a suitable level. (Somchai Kuakul, 11 October 2003). The melismatic style of ornamentation in some cases, on the other hand, is generally exceptional in the procedure of melodic extension. But mostly the melodic genre appears in syllabic style. Overall system reveals that one note of scale functions as a central tone in melodic organization.

The chant is a free-rhythmic melody (*changwa itsara*). The variation of rhythmic patterns is made up of fluctuation of textual inflections that articulate a distinct vocal style.

Original reading style of poetry following checked and non-checked syllables (*kham pen* and *kham tai*) or stressed and non-stressed syllables with specific to timing unit of extension of each text formed the melodic notion in terms of timing. In addition, the stressed and non-stressed syllables (*kharu-lahu*) in Indian poetic rules can be likened to this notion. (Phaithun Phromwichit, 1998: 13) To summarize, the durational rule of poetry influenced the rhythmic form, the extension, and structural form of chanting.

Embellishments – Various chanting techniques such as nasal sound, shivering sound, and various styles of singing ornamentation, such as acciaccatura, staccato, trill, turn, and mordent, are referred to as embellishments (*metphrai*). Furthermore, the texts with indefinite intonation (Thai:, *siang noe*) are commonly encountered.

Chanting Techniques and Musical Articulation Styles - The majority of the chanting is done in a syllabic style of singing with ornamentation that lasts for an extended amount of time. The enlarged melodies were divided into fractions, which are considered meaningless syllables, unlike melismatic style singing. In terms of linguistic phenomena, this fraction arose from text syllabification. This unique method is unlikely to be found in any other Thai vocal music. Furthermore, the neumatic and melismatic styles are commonly used as embellishments in the introduction and final sections of chapters.

With the length (13 episodes taking more than entire day to complete) of the chants of the chanting, the chant is presented by recitation. Furthermore, the characteristic of the chant is intoned, whose lyric varies according to many prosody patterns. This makes Mahachat Kham Luang chant cannot rely so much on remembrance like any other chant in Buddhism, which “is normally done from memory” (Terry E. Miller, 1992: 163) Furthermore, the melodic expression of the chant becomes the significance that makes this chant even more special, which leads to aesthetical perception of dharma of Siamese who is musical in the past.

The notation that appears on the ancient manuscripts along with the chant is a significant wisdom that reflects the struggle against the length of the chant as well as subtle melodies. To its sustainability, The transmission into the future becomes a concern that had to be addressed at some point. Furthermore, we may conclude there is no evidence of a notation scheme in the history of Thai music culture until the arrival of tonic sol-fa notation during King Rama V's reign. (*Phra Aphaiphonrop*, 1912) If that's the case, this research may be credited with revealing early 15th-century Thai notation.

Unlike a poem, writing down the melody in written form is tough. Because, the musical sound element is not supported successfully by orthographical system. Thus, the written

format that will be able to preserve the chant is considered as advanced intelligence; and it should be promoted as cultural heritage. With the author's expertise in musical analysis especially in ethnomusicological research, the purpose of this study is to examine a sign system of the notation that is applied to communicate vocal articulations in the chant.

Result

The vocal notation set with a fine organization is represented by the basic elements, namely symbol, color, and position of symbols which introduce the notation's characteristics. The notation's notating system demonstrates how different colors are used to distinguish between characters and chanting symbols. The chanting texts are represented by yellow, while the chanting symbol is represented by white. As a consequence, this coloring distinction strategy will aid in the reduction of uncertainty between the two parts that are depicted as a pair. (see Figure 6)

In addition, there are also symbols communicating tonal articulation, placed above and below the texts (hymn). The area beneath the texts indicates the order: first, followed by the symbols above the chanting texts. Low-pitched chanting signs are placed below the chanting texts, while high-pitched chanting signs are placed above them.

This is because the gimmicky details are what give the chants their complex melody. According to the researcher, if the texts lack a notation system, it is difficult to recall a particular detail of the melodies. While the melodies are sometimes identical, they are often found to be flexible due to word articulation uncertainty. The symbolic system is considered to be an effective reminder for sight-singing performance because the chant's melody contains a lot of repetition in terms of melodic elements and embellishments. This condition represents that the notation for chanting was mainly created for the purpose of sight-reading during a performance. Furthermore, the chanters can be able to recall the chant by interpreting notated symbols. As a consequence, it's fair to conclude that notation meets the need for memory aid. In addition, the benefit of the written form might involve to preservation purpose of the chant in the long run.

When the upper and lower symbols appear together, the melodic movement begins at the bottom and proceeds to the top mark. It reveals that the underneath space of the words plays an important role in figuring long continuous melodies in a space limitation in

some cases where the melody is represented with long continuous details. In addition, it appears that upper space of the text signifying the pitches, F# and A while underneath space of the text signifying pitches, C#, D, and E.

Types of notation system

A musical notation is made up of two elements: a collection of 'signs' and a set of rules for how those signs interact. (Stanley Sadie, 1995: 336) In the Grove Dictionary of music, there are six different systems found in the world: namely alphabetical, syllabic, words, numbers, graphic, and hybrid systems. (Stanley Sadie, 1995: 336) Due to the use of symbols and their systematic arrangement, the notation is characterized by a blend of different types of signs. The notation is made up of a combination of five different types of sign systems, according to the results of the research, including graphic notation, symbolic notation, alphabetical notation, syllabic notation and numerical notation. Those types of notation then can be synthesized into two groups, graphic notation and symbolic notation. The vocal symbols are characterized by a zigzagged line that corresponds to melodic contour in graphical notation, which expresses a virtual melody. The visual signals' orientation, on the other hand, is inaccurate in every manner; it is merely a representation of remembering. If the chanters can recall it, there is no need to make it complicated, which makes it difficult to understand in performance time, which requires the use of a sight-reading technique.

Symbolic notation

A special symbol is represented by the notation. This type of symbol signifies an articulating feature that does not appear to be a melodic motion. As a result, rather than melodic movements, the symbols included in the type are commonly used to present timbre of voice technique. For instance, glottal sound (/ʔ-/): *ang* (a Pali vowel); ๒ denoting a nasal sound (/h-/); and number and ๑ for / ๑ /-. There is only one number found in the notation, known as *mai yamok*, ๒ (in Thai lit. "twice"), which denoted repetition. As a result, the symbol system is used to represent a particular vocal technique that was developed and passed down to the present day.

Types of Representation

Each symbol in the notation has a specific meaning, reflecting the sound of the chant. The symbols are arranged in a systematic representation. It can be distinguished into two types: single symbols and compound symbols, as follows.





Single symbol





A single symbol is a symbol that always appears in its own form when sound dictation of chanting lyrics is specified, such as the $+$ signifying a separate low-pitch syllable, the ? signifying a note with additional embellishment, and the + signifying a high-pitch symbol. Furthermore, those symbols are placed above the text to indicate high-pitch articulation and below the text to indicate low-pitch articulation. As a result, the notation system employs particular symbols, as well as their placement in relation to pitch articulation.





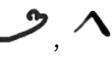

















Multiple symbol









Because a chanting word can articulate into a variety of sound characteristics, more than one type may be required in some cases. This introduces the concept of combining different types of notations as a hybrid representation, referred to as a blended symbol, into the system. Furthermore, the sounds produced by multiple symbols must be coordinated with one another. Unlike single symbols, multiple symbols are used to express the pattern of subtle variations. The use of two areas (above and below the texts) may also contain multiple symbols. As a result of the complex melody of the chant, the notation is often complex accordingly, and the visual effect of the notation appears to be perplexing. Figure 1 below shows a list of some of the collecting notations used in this study.

Figure 1: Examples of Notation

symbol	Pitch/ Pitched contour	Example
!	F#	
+	C#, D	
+	A	
?	E-E-D E-E-C# C#-E-C	
?	any	/ha:/'

symbol	Pitch/ Pitched contour	Example
ʌ	any	/ŋ/
ɔ̃	A-C#	
ɔ̂	E-E-F	
o	any	/hu:/ or /ʔ/
to	any, mostly low pitch	
ɔ̃	A-E	
>	F#-A, F#-E	
ɔ̃	E-A-D F#-A-E E-A-C#	
	D-E-F#	
ɔ̃	E-A-D	
ɔ̃	F#-A-C#	
ɔ̃	C#-A-F#-E	
ɔ̃	any	

symbol	Pitch/ Pitched contour	Example
	A-E	
	D-F#-E E-F#	
	any	
	F#-E-E	
	E-D-E-D	
	E-F#	
	undefined pitch	
	D-A	
	E-F#	
	E-F#	
	F#-A-F#	

symbol	Pitch/ Pitched contour	Example
	E	
	F#-E	
	F#-E-A-C#	
	F#-E	

However, it still appears that the chant and symbolic notes have a number of unrelated features. This may involve a number of factors. For example, it may concern with duplicating procedure of manuscript. Making a duplication of chanting book with the notation is a very detailed work, so mistakes can be easily made. However, according to this research, a variety of minor incoordination between vocal aspects and symbolic notes can still be detected. This may be the result of a genetic alteration that is passed down from generation to generation. The Department of Religious Affairs of the Ministry of Culture currently employs chanters who are involved with preservation and service.

In a sight-reading style, because the chant takes a long period of time to complete (approximately 2 hours), each word of the lyric contains both similar and dissimilar articulation rules. As a result, they are unlikely to be able to perform the chant only from their memory.

According to what I have just described, the situation shows that the chanters, while the chant, always involve with a three-part role at the same time, namely reading symbols, remembering melody, and finally articulating the vocal melodies in a refined voice.

While this notation is primarily used to read chant, it is also a valuable tool for preserving chant as a national treasure. Since then, it has evolved from an abstract to a form of writing for a long-term preserving purpose. It is often considered as a priceless piece of wisdom that represents the wise creator. This notation, on the other hand, appears to be a visual shape that communicates articulating characteristics. However, based on the graphical

features, it does not represent a very accurate system compared to other modern notations available in present day. However, it can be deduced that the ancient manuscript notation in the *Mahachat Khamluang* was developed solely to serve as a reminder of the memories of melodic expressivity that the reader must go through. As a result, the chanter can efficiently use the notation in conjunction with performance.

Figure 2: The lengthy melody in syllabic style of the text, *phram*.



Figure 3: The antique manuscript from *Mahachat Khamluang*'s Mahaphon chapter held by the Department of Religious Affairs. (Author's photo from 2006)



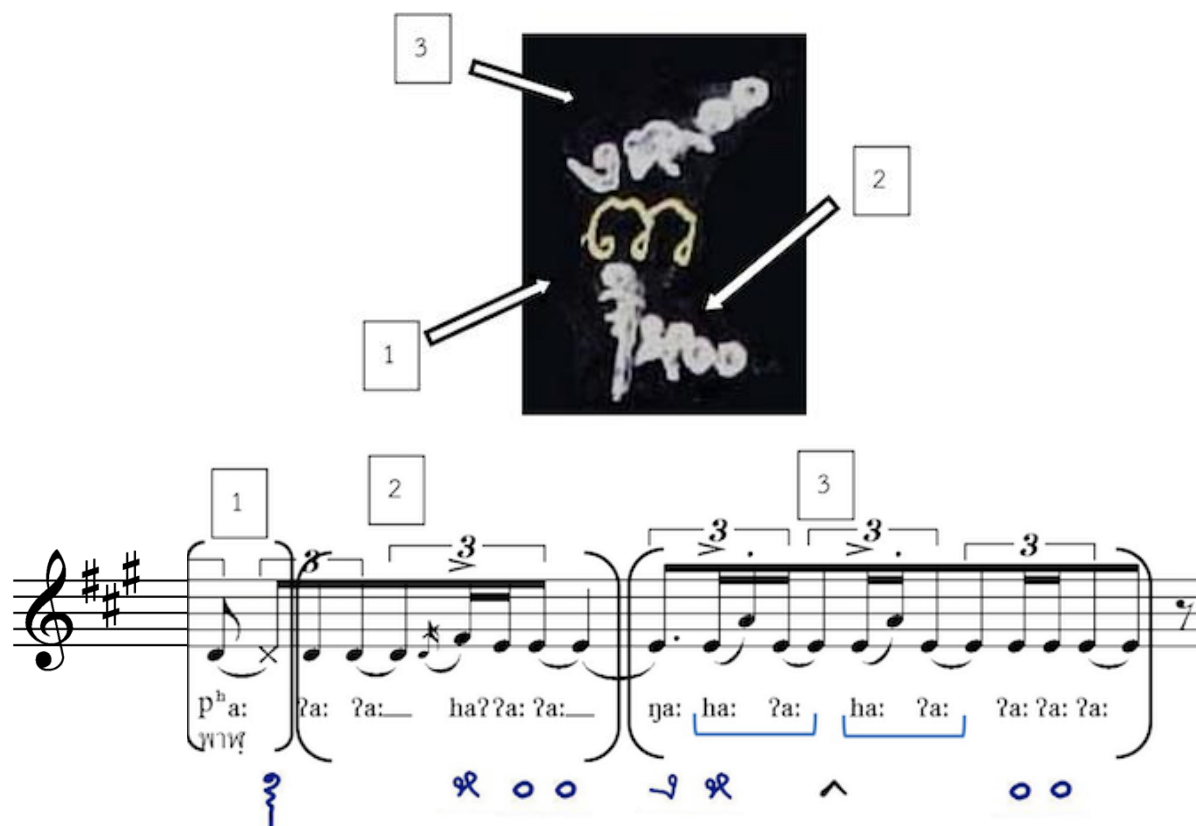
Figure 4: The four chanters, led by Somchai Kuakul (second from right), chanted *Mahachat khamluan* in the main church of *Wat Phrasri Rattanasatsadaram* in Bangkok, Thailand, on 11 October 2003. (photo by the author)










Figure 5: The photograph shows the contents about text and musical notation in the ancient manuscript of *Mahachatkhamluang: Mahaphon* chapter which belongs to the Department of Religious Affairs. (photo by the author, 2006)



Figure 6: An example of melodic extension of the text *pha* (in Khmer) shown in the manuscript.



The process of melodic extension shown in Figure 6 comprises three parts: 1) Position of the main text (*pha*) articulating in specific pitch, D, then it is added undefined-pitch

embellishment (*siang noe*) with the  underneath; 2) adding the group of syllables /ha:/ and /ʔa:/ with the  and ; 3) a prolongation constructed by adding /ŋ-/ syllable with  and /ha:/ with , next the repetition of the syllable /ha:/ with , then the closing part represented by the syllables /ʔa:/ with  to complete the enlarged phrase of the text *pha*.

Discussion and Conclusion

The articulation symbols serve as musical notation, with a consistent system represented by a variety of graphic forms. They were designed to be read along with actual chanting in order to help chanters draw melodic figures. The antique manuscript is written in two colors: white for musical notations and yellow for the lyric. The pitch, high or low, was indicated by vocal indicators placed above or below the text. Upper symbols indefinitely refer to high pitch and below symbols refer to low pitch. The notation can be categorized into 5 kinds of notation genres: 1) alphabetical notation, 2) syllabic notation, 3) sign system, 4) numerical notation, and 5) graphic and symbolic notation, which all of them refer to the use of visual symbols as reminders of sounds and techniques.

From the researcher's point of view, it seems too complicated to notate every single syllable by means of memorizing without any notation tool. Flexibility and repetition of melodies might be inevitably the main reasons that established the idea of notation in order to guide chanter's memory when they are reading. However, it is recommended to learn to read the musical notation as well as to memorize the chanting. Both are useful for the study of *Mahachat Khamluang* chanting.

The notation of the chant is divided into symbolic notation and graphic notation. It is in the format of single and multiple symbols. It reveals an organized notation system, which is an effective means of handling various rhythms and pitch expressions. We can summarize the advantages of this notation in three points. First of all, it is a useful tool for communicating melody, especially when remembering a melody, because its interpretation is as simple as a sight-reading tool. The system then conveyed a consistent meaning. Last but not least, it's a yet another written music notation system developed in the past. In this system, it has yet to appear in any other notation.

Suggestion from Research

Other chapters of Mahachat Khamluang contain tunes that have been lost for decades, yet their notation still exists in ancient manuscripts, despite the fact that they have remained unstudied. (Suchat La-ong, 2006: Personal interview). By understanding their vocal notation, the findings of this study might lead to the revival of vanished melodies. Furthermore, the chant has been oversimplified in its overall transmission. Currently, the leader has translated the vocal notation of the chant into an orthographical form of reading text in order to assist new chanters and reduce their practicing effort. As a result, it appears that the manuscript has been unread for decades. Nobody will be able to comprehend the vocal notation in the near future.

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